What Is Claimed Is:

1. A monoclonal antibody raised against tau protein(s) and having been screened against human cerebrospinal fluid, said monoclonal antibody being in a substantially isolated form.

2. A monoclonal antibody raised against a tau protein fragment(s), and having been screened against human cerebrospinal fluid, said monoclonal antibody being in a substantially purified form, and said tau protein fragment(s) including the amino acids from serine^{199} to serine^{396} of tau protein.

3. A monoclonal antibody according to claim 2, raised against a tau protein fragment(s), and having been screened against human cerebrospinal fluid, said monoclonal antibody being in a substantially purified form, and said tau protein fragment(s) including the sequence from serine^{199} to serine^{396} of tau protein, and lacking the native N-terminal and C-terminal amino acids.

4. A protein fragment of an isoform of tau protein, said protein fragment having an apparent molecular weight less than 50 kDa, and being in a substantially isolated form.

5. A protein fragment of an isoform of tau protein according to claim 4 wherein said protein fragment is comprised of the sequence including amino acids serine^{199} to serine^{396} of tau proteins.

6. A protein fragment of an isoform of tau protein according to claim 4 wherein said protein fragment is comprised of the sequence including amino acids serine^{199} to serine^{396} of tau proteins, and lacking the native N-terminal and C-terminal amino acids.

7. A protein fragment of an isoform of tau protein according to claim 4 wherein said protein fragment possesses an apparent molecular weight of about 30 kDa to about 50 kDa, and being in a substantially isolated form.

8. A protein fragment of an isoform of tau protein according to claim 7 wherein said protein fragment is comprised of the sequence including amino acids serine^{199} to serine^{396} of tau proteins.

9. A protein fragment of an isoform of tau protein according to claim 7 wherein said protein fragment is comprised of the sequence including amino acids serine^{199} to serine^{396} of tau proteins, and lacking the native N-terminal and C-terminal amino acids.

10. A protein fragment of the light neurofilament subunit, said protein fragment having an apparent molecular weight less than 68 kDa, and being in a substantially isolated form.

11. A protein fragment of the medium-sized neurofilament subunit, said protein fragment having an apparent molecular weight less than 160 kDa, and being in a substantially isolated form.

12. A protein fragment of the heavy neurofilament subunit, said protein fragment having

an apparent molecular weight less than 200 kDa, and being in a substantially isolated form.

13. A protein fragment of neurofilament66, said protein fragment having an apparent molecular weight less than 66 kDa, and being in a substantially isolated form.

Method For Determining Axonal Damage

14. A method of determining axonal damage in the human central nervous system, said method comprising the steps:

(a) obtaining a sample of cerebrospinal fluid from said human central nervous system;

(b) treating said sample of cerebrospinal fluid with at least one monoclonal antibody, said at least one monoclonal antibody having been raised against an axonally-derived protein; and

(c) detecting the presence of said axonally-derived protein bound to said at least one monoclonal antibody.

15. A method according to claim 14 additionally comprising the step of comparing the amount of said axonally-derived protein bound to said at least one monoclonal antibody in step (c) to control samples selected from the group representing a normal undamaged axon state and those representing an axonal damage state.

16. A method according to claim 14 wherein said axonally derived protein is at least one isoform of tau protein.

17. A method according to claim 16 wherein said at least one isoform of said tau protein is a fragment of said tau protein demonstrating an apparent molecular weight less than 50

kDa.

18. A method according to claim 17 wherein said at least one tau protein fragment demonstrating an apparent molecular weight in the range of about 30 kDa to about 50 kDa.

19. A method according to claim 18 wherein said at least one tau protein fragment comprises the sequence from serine^{199} to serine^{396} of tau protein.

20. A method according to claim 19 wherein said at least one tau protein fragment lacks the native N-terminal and C-terminal amino acids.

21. A method according to claim 14 wherein said axonally-derived protein is at least one neurofilament protein from the class of neurofilament proteins consisting of the light neurofilament subunit, the medium-sized neurofilament subunit, the heavy neurofilament subunit and/or neurofilament66.

22. A method according to claim 21 wherein said neurofilament protein is a fragment of the full length neurofilament protein found in human cerebrospinal fluid.

23. A method according to claim 14 wherein said presence of said axonally-derived protein bound to said at least one monoclonal antibody is detected through gel electrophoresis.

24. A method according to claim 23 wherein said axonally-derived protein bound to said

at least one monoclonal antibody is a fragment of tau protein which is detected through gel electrophoresis and which gives rise to an electrophoresis gel demonstrating multiple protein bands with apparent molecular weights less than 50 kDa.

25. A method according to claim 24 wherein said axonally-derived protein bound to said at least one monoclonal antibody is a fragment of tau protein which is detected through gel electrophoresis and which gives rise to an electrophoresis gel demonstrating multiple protein bands with apparent molecular weights from about 30 to 50 kDa.

26. A method according to claim 14 further comprising the measurement of said axonally derived proteins in said cerebrospinal fluid by an ELISA technique.

27. The method of claim 26 wherein the ELISA employs monoclonal antibodies recognizing tau protein present in human cerebrospinal fluid.

28. The method of claim 26 wherein the monoclonal antibodies comprise Mabs cTau7, cTau8 and/or cTau12.

29. The method of claim 26 wherein said ELISA is a tau sandwich ELISA.

30. A method according to claim 14 wherein said cerebrospinal fluid is collected from a patient with a neurological disease selected from the group consisting of traumatic central nervous system injury, central nervous system tumor, neurodegenerative diseases of the central nervous system including Alzheimer's Disease, spinal cord injury or cerebral vascular accident.

at least one monoclonal antibody is a fragment of tau protein which is detected through gel electrophoresis and which gives rise to an electrophoresis gel demonstrating multiple protein bands with apparent molecular weights less than 50 kDa.

25. A method according to claim 24 wherein said axonally-derived protein bound to said at least one monoclonal antibody is a fragment of tau protein which is detected through gel electrophoresis and which gives rise to an electrophoresis gel demonstrating multiple protein bands with apparent molecular weights from about 30 to 50 kDa.

26. A method according to claim 14 further comprising the measurement of said axonally derived proteins in said cerebrospinal fluid by an ELISA technique.

27. The method of claim 26 wherein the ELISA employs monoclonal antibodies recognizing tau protein present in human cerebrospinal fluid.

28. The method of claim 26 wherein the monoclonal antibodies comprise Mabs cTau7, cTau8 and/or cTau12.

29. The method of claim 26 wherein said ELISA is a tau sandwich ELISA.

30. A method according to claim 14 wherein said cerebrospinal fluid is collected from a patient with a neurological disease selected from the group consisting of traumatic central nervous system injury, central nervous system tumor, neurodegenerative diseases of the central nervous system including Alzheimer's Disease, spinal cord injury or cerebral vascular